

CLAIMS

ins c4
ins c5
5 1. An isolated DNA molecule comprising a nucleotide sequence encoding a polypeptide having human LYC3 protein activity, wherein said nucleotide sequence shares at least 70% homology to the nucleotide sequence of nucleotides 81-521 in SEQ ID NO: 3, or said nucleotide sequence can hybridize to the nucleotide sequence of nucleotides 81-521 in SEQ ID NO: 3 under moderate stringency.

2. The DNA molecule of Claim 1 wherein said nucleotide sequence encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 4 or of 20-148 in SEQ ID NO: 4.

ins c6
10 3. The DNA molecule of Claim 1 wherein said nucleotide sequence comprises the nucleotide sequence of nucleotides 81-521 in SEQ ID NO: 3.

4. An isolated LYC3 polypeptide comprising a polypeptide having the amino acid sequence of SEQ ID NO: 4 or of 20-148 in SEQ ID NO: 4, its active fragments, and its active derivatives.

5. The polypeptide of Claim 4 wherein said polypeptide is a polypeptide having the amino acid sequence of SEQ ID NO: 4 or of 20-148 in SEQ ID NO: 4.

6. A vector containing the DNA sequence of Claim 1.

7. A host cell transformed by the vector of Claim 6.

8. The host cell of claim 7 wherein it comprises E.coli.

9. The host cell of claim 7 wherein it comprises eukaryotic cell.

10. A method for producing a method for producing a polypeptide having the activity of LYC3 protein, which comprises the steps of:

(a) forming an expression vector of LYC3 protein comprising the nucleotide sequence encoding the polypeptide having the activity of LYC3 protein, wherein said nucleotide sequence is operably linked with an expression regulatory sequences, and said nucleotide sequence shares at least 70% homology to the nucleotide sequence of positions 81-521 in SEQ ID NO: 3;

25 (b) introducing the vector of step (a) into a host cell, thereby forming a recombinant cell of LYC3 protein;

(c) culturing the recombinant cell of step (b) under the conditions suitable for expression of LYC3 polypeptides;

(d) isolating the polypeptides having the activity of LYC3 protein.

30 11. The method of Claim 10 wherein said nucleotide sequence comprises nucleotides 81-521 of SEQ ID NO: 3.

12. An antibody specifically bound with the LYC3 polypeptide of Claim 4.

13. A nucleotide molecule wherein it is the antisense sequence of the DNA molecule of Claim 1.

14. A probe wherein it comprises about 8-100 consecutive nucleotides of the DNA molecule of Claim

35 1.

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